

## ABSTRACT

The present invention is a high performance microcellular polyurethane foam suitable for numerous applications normally considered outside the realm of conventional solid systems. Also included in the present invention is a method of manufacturing the high performance microcellular polyurethane foam using controlled water addition, foam surfactant addition, a modified catalyst system, the addition of a delayed action tin catalyst and a reduced NCO/OH ratio. The present invention has special application for industrial parts, especially the bowling equipment industry and the cardboard manufacturing industry.